TRANSMITTAL OF APPEAL BRIEF (Large Entity)

Docket No. ITL.1017US

In Re Application Of: Randy Skocypec et al.

Application No. 10/622,307

Filing Date July 18, 2003

Examiner Bibi Sharidan Carrillo Customer No. 21906

Group Art Unit 1746

Confirmation No.

4356

Invention:

Cleaning Semiconductor Wafers

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Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed on March 31, 2005

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Dated: May 6, 2005

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pplicant:

Randy Skocypec et al.

Art Unit:

1746

Serial No.:

10/622,307

Examiner:

Bibi Sharidan Carrillo

Filed:

July 18, 2003

Docket:

ITL.1017US

P16704

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For:

Cleaning Semiconductor

Wafers

Assignee:

Intel Corporation

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APPEAL BRIEF

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REAL PARTY IN INTEREST

The real party in interest is the assignee Intel Corporation.

RELATED APPEALS AND INTERFERENCES

None.

STATUS OF CLAIMS

Claims 1-8 (Rejected).

Claims 9-17 (Withdrawn).

Claims 1-8 are rejected and are the subject of this Appeal Brief.

STATUS OF AMENDMENTS

All amendments have been entered.

SUMMARY OF CLAIMED SUBJECT MATTER

The correspondence of the claims to one illustrated embodiment is indicated in the annotated claim 1 and in Figure 2 below.

1. A method comprising:

positioning a wafer (W, Fig. 2 below) between a pair of rotating brushes (14a, 14b) (Specification at page 2, lines 19-20);

providing a cleaning solution (C) through at least one of said brushes (Specification at page 3, lines 4-7); and

spraying a solution (D) at the interface between said rotating brushes and said wafer (Specification at page 3, lines 15-17).

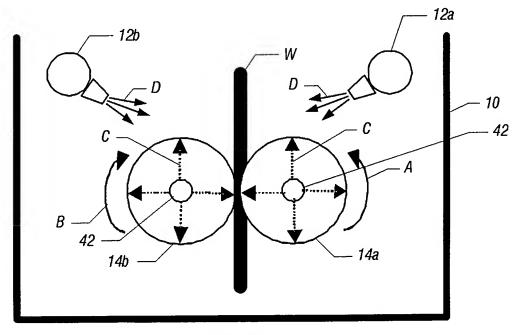


FIG. 2

At this point, no issue has been raised that would suggest that the words in the claims have any meaning other than their ordinary meanings. Nothing in this section should be taken as an indication that any claim term has a meaning other than its ordinary meaning.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- A. Are Claims 1-8 Indefinite for Failing to Particularly Point Out and Distinctly Claim the Subject Matter
- B. Are Claims 1-8 Anticipated by Mikhaylichenko?

ARGUMENT

A. Are Claims 1-8 Indefinite for Failing to Particularly Point Out and Distinctly Claim the Subject Matter

The Section 112 rejection that the claim must indicate, in the preamble, the type of method involved is noted. However, there is nothing in any of the rules or the statutes that can be found that requires such preambles. Generally, preambles are not even limitations in the claims, although they sometimes may be, and, therefore, there is no basis to conclude that the claim is somehow vague because the preamble is non-specific. The claim clearly tells what it covers. It does not matter what type of method it is as long as the steps are clearly set forth. In short, there is no basis for an assertion that the preamble is too broad.

Therefore, this objection should be reversed.

With respect to the objection that a "solution" and a "cleaning solution" are confusing, it is noted that this same language has been in the claims throughout prosecution. The material added to claim 1 was formerly in dependent claim 4 and existed without objection. It is respectfully submitted that a cleaning solution and a solution may be the same or different. There is no reason to limit them in any way. The fact that "a" is used before "solution" makes it perfectly clear that "a solution" need not be the same solution as "a cleaning solution" in the preceding paragraph.

Therefore, this objection should be reversed.

B. Are Claims 1-8 Anticipated by Mikhaylichenko?

The final office action contends that the cited reference teaches spraying a solution at the interface between the rotating brushes and the wafer. The office action suggests that Figure 3B shows such an interface, despite the fact that the rotating brushes and the wafer are spaced from one another. There simply cannot be an "interface" between two things that do not touch. For example, Dictionary.com defines "interface" as a surface forming a common boundary between adjacent regions, bodies, spaces, or phases. See Evidence Appendix

There is an interface between the brushes and the wafer in Figure 3A but then, of course, there is no spraying. The cited reference simply does not teach spraying at the interface between

the wafer and the brushes. The assertion that it is clear that there is an interface is puzzling since the Applicants can argue strongly that there is absolutely no such interface.

The assertion (in the Advisory Action) that air may be the interface between the brush and the wafer, or that an interface can extend indefinitely (e.g., around the world?), is noted. However, such a strained construction is both unsupported and inconsistent with the ordinary meaning as demonstrated by the cited dictionary. Such a construction would mean everything has an interface with just about everything else. Therefore, the asserted construction exceeds the reasonable breadth of the claimed interface.

Therefore, the rejection should be reversed.

* * *

Applicants respectfully request that each of the final rejections be reversed and that the claims subject to this Appeal be allowed to issue.

Respectfully submitted,

Date: May 6, 2005

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CLAIMS APPENDIX

The claims on appeal are:

- A method comprising:
 positioning a wafer between a pair of rotating brushes;
 providing a cleaning solution through at least one of said brushes; and
 spraying a solution at the interface between said rotating brushes and said wafer.
- 2. The method of claim 1 including providing a cleaning solution through the center of each of said brushes.
- 3. The method of claim 1 wherein providing a cleaning solution includes providing a solution of deionized water and a cleaning chemical.
 - 5. The method of claim 1 including using a spray bar to spray the solution.
- 6. The method of claim 5 including spraying the deionized water at the interface between the brushes and wafers.
- 7. The method of claim 1 including providing the cleaning solution to both of said brushes.
- 8. The method of claim 1 including cleaning wafers after chemical mechanical polishing.

EVIDENCE APPENDIX

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in ter face Pronunciation Key (Intor fas)

- 1. A surface forming a common boundary between adjacent regions, bodies, substances, or phases.
- 2. A point at which independent systems or diverse groups interact: "the interface between crime and politics where much of our reality is to be found" (Jack Kroll).
- 3. Computer Science.
 - a. The point of interaction or communication between a computer and any other entity, such as a printer or human operator.
 - b. The layout of an application's graphic or textual controls in conjunction with the way the application responds to user activity: an interface whose icons were hard to remember.

v. in ter-faced, in ter-facing, in ter-faces ($\overline{1}$ n ter-faces) v. tr.

- 1. To join by means of an interface.
- 2. To serve as an interface for.

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v. intr.

- 1. To serve as an interface or become interfaced.
- 2. To interact or coordinate smoothly: "Theatergoers were lured out of their seats and interfaced with the scenery" (New York Times).

in ter·fa cial adj.

Usage Note: The noun interface has been around since the 1880s, meaning "a surface forming a common boundary, as between bodies or regions." But the word did not really take off until the 1960s, when it began to be used in the computer industry to designate the point of interaction between a computer and another system, such as a printer. The word was applied to other interactions as well between departments in an organization, for example, or between fields of study. Shortly thereafter interface developed a use as a verb, but it never really caught on outside its niche in the computer world, where it still thrives. The Usage Panel has been unable to muster much enthusiasm for the verb. Thirty-seven percent of Panelists accept it when it designates the interaction between people in the sentence The managing editor must interface with a variety of freelance editors and proofreaders. But the percentage drops to 22 when the interaction is between a corporation and the public or between various communities in a city. Many Panelists complain that interface is pretentious and jargony. Certainly, it has no shortage of

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Source: The American Heritage® Dictionary of the English Language, Fourth Edition
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acceptable synonyms; cooperate, deal, exchange information, interact, and work present themselves as ready substitutes.

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in·ter·face (ĭn'tər-fās')

n.

A surface forming a common boundary between

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adjacent regions or bodies.

Source: The American Heritage® Stedman's Medical

Dictionary

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Main Entry: in·ter·face

Pronunciation: 'int-&r-"fAs

Function: noun

: a surface forming a common boundary of two bodies, spaces, or phases <interfaces between various tissues such as skin, fatty tissue, and muscle —H. P. Schwan> —interface

transitive verb -faced; -fac-ing

-in·ter·fa·cial /"int-&r-'fA-sh&l/ adjective

<u>Source</u>: Merriam-Webster's Medical Dictionary, © 2002 Merriam-Webster, Inc.

interface

n 1: (chemistry) a surface forming a common boundary between two things (two objects or liquids or chemical phases) 2: (computer science) a program that controls a display for the user (usually on a computer monitor) and that allows the user to interact with the system [syn: user interface] 3: the overlap where two theories or phenomena affect each other or have links with each other; "the interface between chemistry and biology" 4: (computer science) computer circuit consisting of the hardware and associated circuitry that links one device with another (especially a computer and a hard disk drive or other peripherals) [syn: port]

Source: WordNet ® 2.0, © 2003 Princeton University

interface

<jargon> A boundary across which two systems communicate. An interface might be a hardware connector used to link to other devices, or it might be a convention used to allow communication between two software systems. Often there is some intermediate component between the two systems which

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connects their interfaces together. For example, two EIA-232 interfaces connected via a serial cable.

See also graphical user interface, Application Program Interface.

(1996-05-22)

Source: The Free On-line Dictionary of Computing, © 1993-2005 Denis Howe

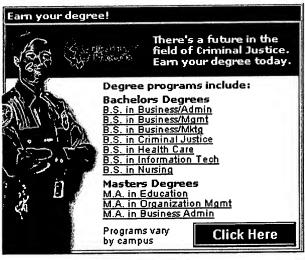
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